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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,463	03/12/2007	Jun-Liang Hu	A4-340 US	1118

7590 12/22/2010
Robert J. Zeitler
MOLEX INCORPORATED
2222 Wellington Court
Lisle, IL 60532

EXAMINER

FLANIGAN, ALLEN J

ART UNIT	PAPER NUMBER
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3744

MAIL DATE	DELIVERY MODE
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12/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,463	HU, JUN-LIANG	
	Examiner	Art Unit	
	Allen J. Flanigan	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 8 and 9 are rejected under 35 U.S.C. § 112, fourth paragraph, as being an improper dependent claim for failing to further limit the subject matter of the claim from which it depends.

The recitations of claims 8 and 9 fail to further limit the subject matter of claim 1 because the component is not a positively recited element of claim 1.

Claims 1, 2, 8-14, 16, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyerhoff et al.

Meyerhoff et al. shows a radiator (the stack of fins 14 shown in Fig. 1) with a top and bottom surface (surfaces of the corresponding uppermost and lowermost fins) defining a through hole in which is received a column body (element 12) having two ends, with the upper end defining a contact surface, the lower end defining a hollowed portion or recess (threaded hole at the bottom in Fig. 1). This hole inherently increases the radiating surface of the body 12. Note that this body 12 is slightly longer than the height of the fin stack. Note also the flange extending outward from the contact surface. Regarding claim 14, the combined stack of abutting collars 28 read on the claimed "base part".

Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyerhoff et al. in view of Wang et al.

As noted previously, the use of clamping devices that engage the flanged base of heat sinks in columnar configuration are known in the art as shown by Wang et al., and it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ such a clamping device to attach the heat sink of Meyerhoff et al. to a component to be cooled.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyerhoff et al.

The Examiner previously took Official Notice of the notoriously well known nature of using solder to join heat sink components such as fins and bases together; as the applicant has not seasonably challenged this finding, it is taken to be admitted prior art. ***In re Chevenard*, 60 U.S.P.Q. 239**. It would have been obvious to one of ordinary skill in the art at the time the instant invention was made to use solder to join the finned radiator structure of Meyerhoff et al. to the central column 12 to ensure good thermal conductivity.

Applicant's arguments with respect to claims 1-17 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (571) 272-4910. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Allen J. Flanigan/
Primary Examiner, Art Unit 3744